

2015 Regional Telecommunications Review

Submission by the
Northern Territory Government
Department of Corporate and Information Services
to the
*Regional Telecommunications Independent Review
Committee*

July 2015

Summary

The Northern Territory Government Department of Corporate and Information Services appreciates the opportunity to provide a submission to the 2015 Regional Telecommunications Review.

The lack of basic communications infrastructure is the major issue faced by many remote communities in the Northern Territory. These communities are, almost, without exception, Indigenous communities.

The Northern Territory Government will continue to work in partnership with the Australian Government, telecommunications service providers and other non-government organisations to facilitate telecommunications services in remote communities that will reduce the gap of Indigenous disadvantage, enable much-needed economic development and deliver social benefits. To do this effectively as many communities as possible must be serviced by reliable terrestrial telecommunications services.

Terrestrial telecommunications infrastructure into remote communities remains a high priority for the Northern Territory.

The Australian Government can assist in meeting this need by shifting the policy setting to align with its own position of reusing existing infrastructure. This would mean that terrestrial connected fixed wireless services should be provided in each community that is connected to the national network via optic fibre; reusing Telstra's network infrastructure to enable a reliable connection to every home and business in these communities.

Introduction

It is now widely accepted that reliable and affordable telecommunications services provide significant social and economic benefits. Telecommunications services have become increasingly critical and underpin the delivery of essential health and education services, social interaction and business development.

Remote communities of the Northern Territory will gain the most from reliable high-speed broadband services.

The Northern Territory Government supports the NBN as it will, in principle, provide a competitive wholesale environment across the whole of the Northern Territory.

The NBN should leave no Territorian worse off. However, under the Australian Government policy satellite technology will be deployed for remote communities, not fixed line access. The NBN will leave residents of some remote Northern Territory communities in a worse position than they are currently. There are 33 remote Northern Territory communities that already have fibre optic infrastructure connected to the telecommunications network. This existing infrastructure will be ignored under the NBN and telecommunication services instead provided via the inferior NBN satellite service.

The policy position of delivering NBN broadband services to remote communities via satellite, regardless of existing infrastructure, will not address the issues of disadvantage in remote Indigenous communities and will not enable improvements.

If the NBN is to be a truly 'national' network it must deliver appropriate telecommunications services to meet the growing needs of remote Indigenous communities.

Remote Infrastructure

Of the 74 remote Northern Territory communities with a population greater than 100, representing approximately 45 000 people; 30 communities are serviced with ADSL and mobile telephony is available in 44 communities. All 74 communities have access to basic telephony.

Across the Northern Territory there are 33 remote communities connected at the local exchange to Telstra's national network by optic fibre. A number of other communities are connected via high speed radio links providing multiple high speed channel connections.

Substantial parts of the terrestrial radio infrastructure across the Northern Territory are technically incapable of delivering any telecommunications service other than basic telephony. In some areas the inter exchange network is at full capacity and unable to provide any additional service to communities, such as mobiles and broadband.

The Northern Territory has a long history of telecommunications service delivery over satellite which will always have its place in delivering broadcasting and some telecommunications services. However, the Northern Territory Government considers satellite as the third choice for telecommunications service delivery, after terrestrial optic fibre and radio/wireless infrastructure. It is self-evident that satellite is not the media of choice for telecommunication services delivery. This aspect is addressed in Chapter 2 of the Issues Paper.

Smart phones and tablet devices are the product of choice in remote and particularly Indigenous communities. Prepaid mobile services assist with managing account payments and minimise cultural issues related to resource sharing.

Most Indigenous communities have bypassed the personal computer and laptop platform in favour of smart phones and tablets. This establishes a mechanism by which information and government services can be delivered directly to individuals within communities.

The Northern Territory Government views this as such an important issue that investment in telecommunications infrastructure, in conjunction with Telstra, has become a priority despite a fiscally diminished position.

To this end, over 2013-2014 the Northern Territory Government invested approximately \$2.8 million, on a shared cost basis with Telstra to deliver mobile phone services and ADSL2+ broadband services to 13 remote communities.

Similarly, over the next three years the Northern Territory Government and Telstra are committed to a joint \$30 million program to improve telecommunications infrastructure to remote communities under an Infrastructure and Sustainability Co-investment Agreement.

The Northern Territory Government has also provided a grant to the Centre for Appropriate Technology (CAT) in Alice Springs to install its mobile hot spot technology in 22 locations in Central Australia over the next three years to improve mobile phone coverage in these remote localities.

The CAT Mobile Hot Spots Program is innovative technology that amplifies a distant mobile phone signal without the use of electronics. This means low cost and no power requirements and is an ideal solution for very remote areas.

While the Northern Territory welcomes the inclusion of five remote communities in the recently announced Australian Government Mobile Black Spots Programme, the need to reduce the disadvantage in remote Indigenous communities requires additional investment in telecommunications infrastructure by the Australian Government.

Health and Education in Remote Communities

The Northern Territory has had significant success in implementing eHealth initiatives in remote health centres under an agreement between the Northern Territory Government and the Aboriginal Controlled Community Health Services. As a result, more than 80% of Northern Territory remote health centres have moved towards electronic health records.

The Northern Territory leads the country in the development and deployment of electronic health records and health protocols to improve public health services delivery. eHealth services that have had significant success include Shared Electronic Health Record and Secure Electronic Messaging.

The Northern Territory's capacity to implement eHealth initiatives such as Telehealth, however, has been limited due to the low bandwidth capacity and the cost of communications services to remote communities.

Reliable and affordable telecommunications is key to the expanded delivery of electronic health services. A new service to be rolled out in the Northern Territory is iCareNet. iCareNet will expand on the success of the Shared Electronic Health Record by providing clinicians with a support tool which will analyse patient clinical data making available best practice advice to the clinician. This tool will be invaluable to remote health clinics if it can be deployed – unreliable, idiosyncratic satellite communications will limit the geographical extent to which this tool can be delivered.

Telecommunications into smaller communities must be optimised to allow for growth in eHealth applications and to provide ubiquitous access to health services both within the Northern Territory and across jurisdictional boundaries.

The Northern Territory Government Satellite to All Remote Sites (STARS) broadband satellite network and online learning systems have transformed the delivery of remote education, making both the Alice Springs and Katherine School of the Air world leaders in the delivery of remote and distance education services. Nevertheless the designed and built for purpose STARS network has limitations in what it can deliver and the educational needs of growing communities are quickly outstripping the capabilities of the network, especially bandwidth.

As the committee has noted in the issues paper, the change in educational practices and the nature of the material being provided for distance education is placing significant demands on telecommunications networks. It is the Northern Territory Government's view that every opportunity should be taken to minimise the demands on finite satellite resources. The provision of services over terrestrial networks should be prioritised to reduce costs to consumers and maximise the opportunity to deliver satellite communications to areas where there is no other option.

Further, the STARS network being built for purpose, is likely to exceed the capabilities of the NBN Long Term Satellite Solution.

Northern Territory schools have enterprise class computers, software and networks providing students and teachers with access to a global pool of digital resources and online learning opportunities. Through Northern Territory and Australian Government programs all Year 9 – 12 students now have 1:1 access to a computer.

Access to resources from any location at any time of the day delivers an education network that can utilise scarce resources much more effectively and greatly improve outcomes.

The virtual class room means that expert teaching skills can be provided to a number of small remote communities simultaneously. In an environment where it is difficult to source and retain teachers, reliable quality broadband offers the potential to reduce turnover in teaching staff in remote communities and expand reach. Remote won't be so remote when friends, family and support are available through a quality videoconference connection.

The ability to broadcast our stories using rich media solutions provides real 21st century skills opportunities for remote teachers and students. This will change our educational environment from a pure consumer of educational content from the national pool, to a contributor of quality content from any location in the Northern Territory.

Without the appropriate, reliable telecommunications services it will be many years before the Northern Territory can fulfil this potential.

National Broadband Network

The Northern Territory Government supports the NBN. The NBN will transform the Australian economy, open new capabilities and provide the capacity to deliver new services. The NBN aims to provide the reach to deliver high quality services to every Australian. Nowhere would the effect of this be felt more or will the benefits be greater than in the remote communities of Australia, particularly the Northern Territory.

The Australian Government's current position is that all remote communities in the Northern Territory will be serviced via satellite. Given this policy position, the 33 optic fibre connected communities in the Northern Territory will take a backward step under the NBN. Existing infrastructure will be ignored and the service quality downgraded. This outcome is directly at odds with the aims of the NBN and with other Australian Government policy positions and the rigid adherence to this stance remains perplexing.

The Northern Territory Government has been working for many years to ensure major remote communities are serviced with reliable high speed broadband communications. A key element of this is to ensure that these telecommunications services are delivered by terrestrial infrastructure, not satellite.

As indicated in the Issues Paper the idiosyncratic nature of satellite makes it difficult, costly or impossible to ensure delivery of some applications. The time delays in satellite communications exclude some applications from operating successfully. The nature of extreme weather conditions common within the Northern Territory, especially in the coastal regions, makes satellite unreliable due to loss of signal, particularly at the times when communications are most needed, such as during a natural disaster.

Satellite services, even purpose designed and built, have limitations and the Northern Territory, through a long history of use of satellite services, knows only too well that satellite is not able to consistently and reliably deliver the necessary capacity and technical capability.

The growing needs of remote communities will require the fibre network connections to be maintained and prices for telecommunications products to be set on the basis of urban parity. This is not assured under the current policy of the Australian Government.

With Telstra only required to provide voice services to these communities, there is no guarantee that the necessary equipment for broadband services will be maintained and a monopoly position for terrestrial broadband will be continued.

The Northern Territory Government has and will continue to lobby the Australian Government to ensure that significant Northern Territory communities are serviced by the NBN over terrestrial infrastructure.

Appropriate technology must be used to meet the needs of a community. Where there is existing suitable infrastructure it should be reused and satellite should not be seen as the easier option.

Conclusion

Reliable high speed broadband has significantly improved how the majority of Australians access entertainment, communicate with family and business colleagues and, importantly, access essential government services such as health and education. Telecommunications infrastructure of a suitable service quality standard has the ability to improve the quality of life and even the life expectancy, of tens of thousands of people in remote communities and narrow the digital divide in Australia.

With relatively small adjustments in its policy position and a shift in focus to the benefits of telecommunications, the Australian Government could deliver a truly national broadband network, with benefits realised by all Australians.